

# **Lab 6**

## **Secure Coding**

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## Q) Python script to get all file names in the current directory.



The image shows a Notepad window titled "cd\_files.py - Notepad". The menu bar includes "File", "Edit", "Format", "View", and "Help". The text area contains the following Python code:

```
import os

with os.scandir('Desktop/') as entries:
    for entry in entries:
        print(entry.name)
```

The status bar at the bottom indicates the cursor is at "Ln 1, Col 1", the zoom is "100%", the encoding is "Windows (CRLF)", and the character set is "UTF-8".

Microsoft Windows [Version 10.0.19041.804]  
(c) 2020 Microsoft Corporation. All rights reserved.

C:\Users\user>cd C:\Users\user

C:\Users\user>python cd\_files.py

16134017718689Q2E8CTyE1RQCvd2.pdf

19bcn7279.py

19bcn7279.spec

201220

2019a7ps0024u.docx

5074736407117824.svg

aadhya

BlueJ.lnk

build

Cisco Packet Tracer.lnk

CS Engineering.xlsx

CS F214-B.pdf

desktop.ini

dist

dms

DMS REPORT.pdf

dms.pdf

FIITJEEfee.pdf

hrushi

iNeuron

itc mqps

lab compre

machine learning

mapo

master.mkv

Microsoft Teams.lnk

Projects

Projects.rar

prospectus.pdf

Python

SCProj1

stats

Telegram.lnk

uivision

verify.pdf

VIT

WhatsApp.lnk

Zoom.lnk

\_\_pycache\_\_

C:\Users\user>

## Q) Python script to get all directory names in the current directory.

```
cd_dir.py - Notepad
File Edit Format View Help
import os
for root, dirs, files in os.walk("Desktop/", topdown=False):
    for name in dirs:
        print(os.path.join(root, name))

Ln 1, Col 1    100%    Windows (CRLF)    UTF-8

C:\Users\user> python cd_dir.py
Desktop/build19bcn7279
Desktop/dist19bcn7279
Desktop/dms\merged
Desktop/hrushi\out\production\hrushi
Desktop/hrushi\out\production
Desktop/hrushi\idea
Desktop/hrushi\out
Desktop/hrushi\src
Desktop\iNeuron\Linear Regression App\static\css
Desktop\iNeuron\Linear Regression App\static\ebextensions
Desktop\iNeuron\Linear Regression App\static\idea
Desktop\iNeuron\Linear Regression App\static
Desktop\iNeuron\Linear Regression App\templates
Desktop\iNeuron\Linear Regression App
Desktop\itc mqps\cat 1
Desktop\itc mqps\cat 2
Desktop\itc mqps\cat 3
Desktop\lab compre\out\production\lab compre
Desktop\lab compre\out\production
Desktop\lab compre\idea
Desktop\lab compre\out
Desktop\lab compre\src
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\idea\inspectionProfiles
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\application_logging\_pycache_
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\best_model_finder\_pycache_
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\data_transformation_prediction\_pycache_
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\data_transform_training\_pycache_
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\data_type_validation_insertion_prediction\_pycache_
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\data_type_validation_insertion_training\_pycache_
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\data_ingestion\_pycache_
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\data_preprocessing\_pycache_
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\EDA\ipynb_checkpoints
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\file_operations\_pycache_
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\models\KMeans
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\models\WaiveBayes1
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\models\WaiveBayes2
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\models\XGBoost0
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\predictionArchivedBadData\BadData_2020-02-19_165637
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\predictionArchivedBadData\BadData_2020-02-19_173611
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\predictionArchivedBadData\BadData_2020-04-12_215100
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\predictionArchivedBadData\BadData_2021-02-26_165536
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\predictionArchivedBadData\BadData_2021-02-26_165647
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\predictionArchivedBadData\BadData_2021-02-26_170239
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\predictionRawDataValidation\_pycache_
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\trainingArchiveBadData\BadData_2020-02-19_162402
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\trainingArchiveBadData\BadData_2020-02-19_162552
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\trainingArchiveBadData\BadData_2020-02-19_163931
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\trainingArchiveBadData\BadData_2020-02-19_165021
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\trainingArchiveBadData\BadData_2020-02-19_165329
```

```
C:\Users\user> python cd_dir.py
Desktop/VIT\Sem 4\G web technologies\Lab\17-02
Desktop/VIT\Sem 4\G web technologies\Lab\22-02
Desktop/VIT\Sem 4\G web technologies\Lab\27-01
Desktop/VIT\Sem 4\G web technologies\Project\19bcn7279_bhanu 03-03-2021\2nd Ques
Desktop/VIT\Sem 4\G web technologies\Project\19bcn7279_bhanu 03-03-2021\html doc
Desktop/VIT\Sem 4\G web technologies\Project\19bcn7279_bhanu 03-03-2021
Desktop/VIT\Sem 4\G web technologies\Theory\Module 1
Desktop/VIT\Sem 4\G web technologies\Lab
Desktop/VIT\Sem 4\G web technologies\Project
Desktop/VIT\Sem 4\G web technologies\Theory
Desktop/VIT\Sem 4\H design analysis of algorithms\Lab\27-02-2021\knapsack
Desktop/VIT\Sem 4\H design analysis of algorithms\Lab\27-02-2021\salesman
Desktop/VIT\Sem 4\H design analysis of algorithms\Lab\27-02-2021
Desktop/VIT\Sem 4\H design analysis of algorithms\Lab
Desktop/VIT\Sem 4\H design analysis of algorithms\Theory
Desktop/VIT\Sem 4\A computer architecture and organization
Desktop/VIT\Sem 4\B secure coding
Desktop/VIT\Sem 4\C database management systems
Desktop/VIT\Sem 4\D computer networks
Desktop/VIT\Sem 4\E graph theory
Desktop/VIT\Sem 4\F safe skills
Desktop/VIT\Sem 4\G web technologies
Desktop/VIT\Sem 4\H design analysis of algorithms
Desktop/VIT\EPFL
Desktop/VIT\General
Desktop/VIT\Sem 2
Desktop/VIT\Sem 3
Desktop/VIT\Sem 4
Desktop\201220
Desktop\aadhyaa
Desktop\build
Desktop\dist
Desktop\dms
Desktop\hrushi
Desktop\iNeuron
Desktop\itc mqps
Desktop\lab compre
Desktop\machine learning
Desktop\mapo
Desktop\Projects
Desktop\Python
Desktop\SCProj1
Desktop\stats
Desktop\ui\vision
Desktop/VIT
Desktop/_pycache_

C:\Users\user>
```

**Q) Python script to get all directory and sub directory names in the current directory.**



The screenshot shows a Notepad window titled "cd\_dir.py - Notepad". The menu bar includes "File", "Edit", "Format", "View", and "Help". The text area contains the following Python code:

```
import os
for root, dirs, files in os.walk("Desktop/", topdown=False):
    for name in dirs:
        print(os.path.join(root, name))
    for subdir in dirs:
        print(os.path.join(root, subdir))
```

The status bar at the bottom indicates "Ln 1, Col 1", "100%", "Windows (CP86)", and "UTF-8".

```

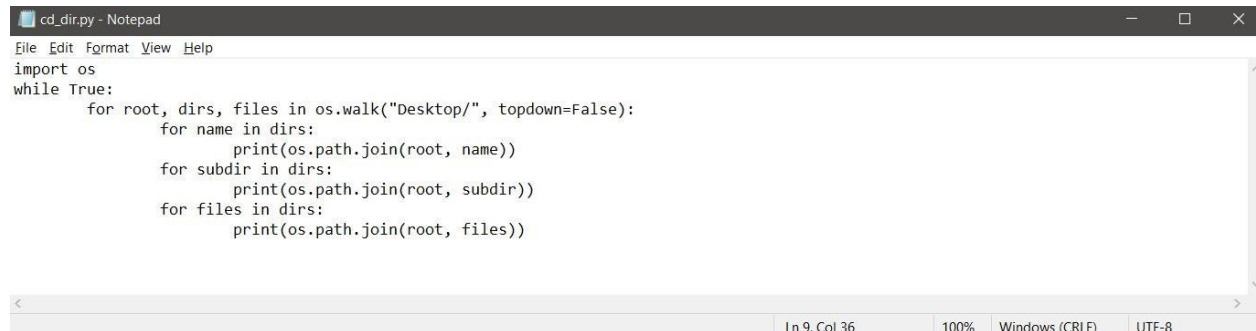
C:\Users\user>python cd_dir.py
Desktop/build\9bcn7279
Desktop/dist\10bcn7279
Desktop/dms\merged
Desktop/hrushi\out\production\hrushi
Desktop/hrushi\out\production
Desktop/hrushi\idea
Desktop/hrushi\out
Desktop/hrushi\src
Desktop/iNeuron\Linear Regression App\static\css
Desktop/iNeuron\Linear Regression App\extensions
Desktop/iNeuron\Linear Regression App\idea
Desktop/iNeuron\Linear Regression App\static
Desktop/iNeuron\Linear Regression App\templates
Desktop/iNeuron\Linear Regression App
Desktop/itc mags\cat 1
Desktop/itc mags\cat 2
Desktop/itc mags\cat 3
Desktop/lab compre\out\production\lab compre
Desktop/lab compre\out\production
Desktop/lab compre\idea
Desktop/lab compre\out
Desktop/lab compre\src
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\idea\inspectionProfiles
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\application_logging\_pycache_
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\best_model_finder\_pycache_
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\dataTransformation_Prediction\_pycache_
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\dataTransform_Training\_pycache_
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\dataTypeValidation_Insertion_Prediction\_pycache_
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\dataTypeValidation_Insertion_Training\_pycache_
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\data_ingestion\_pycache_
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\data_preprocessing\_pycache_
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\EDA.ipynb_checkpoints
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\file_operations\_pycache_
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\models\XGBoost
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\models\NaiveBayes1
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\models\NaiveBayes2
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\models\XGBoost0
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\PredictionArchivedBadData\BadData_2020-02-19_173617
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\PredictionArchivedBadData\BadData_2020-02-19_173611
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\PredictionArchivedBadData\BadData_2020-04-12_215100
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\PredictionArchivedBadData\BadData_2021-02-26_165536
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\PredictionArchivedBadData\BadData_2021-02-26_165647
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\PredictionArchivedBadData\BadData_2021-02-26_170239
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\PredictionRawDataValidation\_pycache_
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\TrainingArchiveBadData\BadData_2020-02-19_162402
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\TrainingArchiveBadData\BadData_2020-02-19_162552
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\TrainingArchiveBadData\BadData_2020-02-19_163931
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\TrainingArchiveBadData\BadData_2020-02-19_165021
Desktop/machine learning\creditCardDefaulters\code\creditCardDefaulters\TrainingArchiveBadData\BadData_2020-02-19_165329

```

```
C:\Users\pysrc> Command Prompt
Desktop/VIT/Sem 4/G web technologies/Lab/V17-02
Desktop/VIT/Sem 4/G web technologies/Lab/V24-02
Desktop/VIT/Sem 4/G web technologies/Lab/V27-01
Desktop/VIT/Sem 4/G web technologies/Project/V19bcn7279_bhanu03-03-2021/2nd Ques
Desktop/VIT/Sem 4/G web technologies/Project/V19bcn7279_bhanu03-03-2021/html doc
Desktop/VIT/Sem 4/G web technologies/Project/V19bcn7279_bhanu03-03-2021
Desktop/VIT/Sem 4/G web technologies/Theory/Module 1
Desktop/VIT/Sem 4/G web technologies/Lab
Desktop/VIT/Sem 4/G web technologies/Project
Desktop/VIT/Sem 4/G web technologies/Theory
Desktop/VIT/Sem 4/H design analysis of algorithms/Lab/V27-02-2021/knapsack
Desktop/VIT/Sem 4/H design analysis of algorithms/Lab/V27-02-2021/salesman
Desktop/VIT/Sem 4/H design analysis of algorithms/Lab/V27-02-2021
Desktop/VIT/Sem 4/H design analysis of algorithms/Lab
Desktop/VIT/Sem 4/H design analysis of algorithms/Theory
Desktop/VIT/Sem 4/A computer architecture and organization
Desktop/VIT/Sem 4/B secure coding
Desktop/VIT/Sem 4/C database management systems
Desktop/VIT/Sem 4/D computer networks
Desktop/VIT/Sem 4/E graph theory
Desktop/VIT/Sem 4/F soft skills
Desktop/VIT/Sem 4/G web technologies
Desktop/VIT/Sem 4/H design analysis of algorithms
Desktop/VIT/EPFL
Desktop/VIT/General
Desktop/VIT/Sem 2
Desktop/VIT/Sem 3
Desktop/VIT/Sem 4
Desktop/201220
Desktop/aadhya
Desktop/build
Desktop/dist
Desktop/dms
Desktop/hrushikesh
Desktop/iNeuron
Desktop/itc maps
Desktop/lab compre
Desktop/machine learning
Desktop/mapo
Desktop/Projects
Desktop/python
Desktop/SCProj1
Desktop/stats
Desktop/uivision
Desktop/VIT
Desktop/_pycache_
C:\Users\pysrc>
```

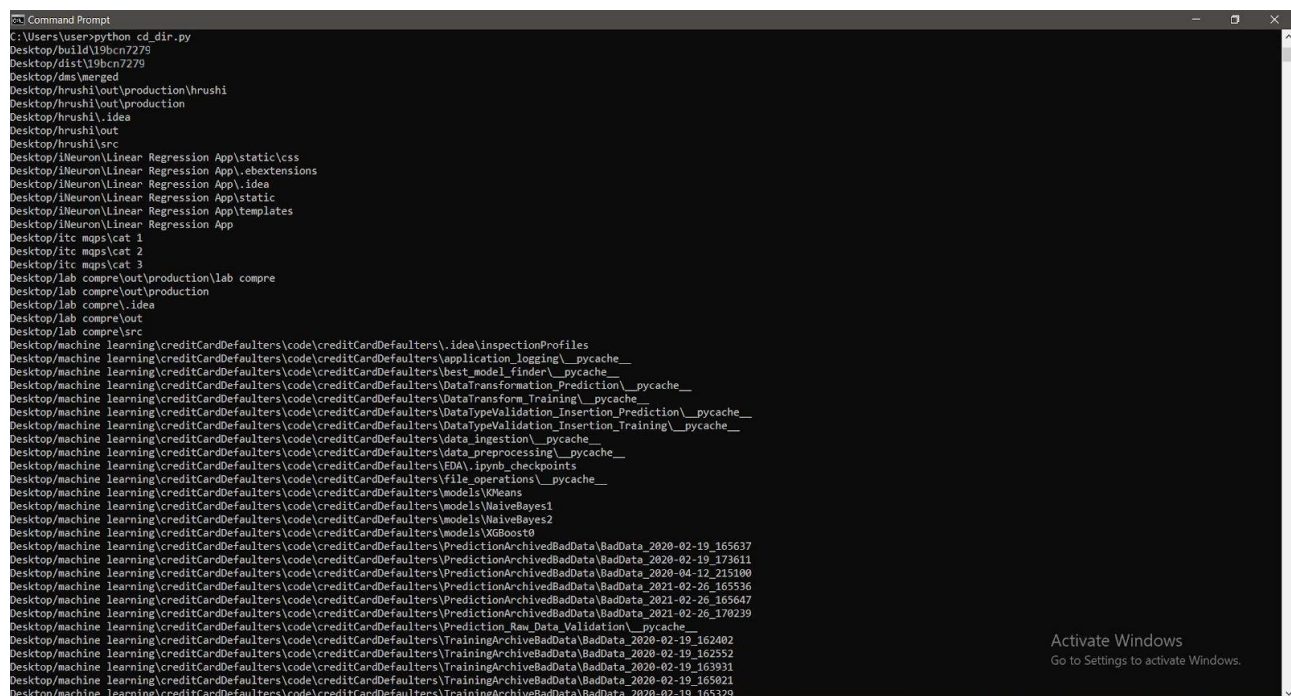


**Q) Write a python script to get all the file name, directory and all the subdirectory names (recursively) in the current directory**



```
cd_dir.py - Notepad
File Edit Format View Help
import os
while True:
    for root, dirs, files in os.walk("Desktop/", topdown=False):
        for name in dirs:
            print(os.path.join(root, name))
        for subdir in dirs:
            print(os.path.join(root, subdir))
        for files in dirs:
            print(os.path.join(root, files))

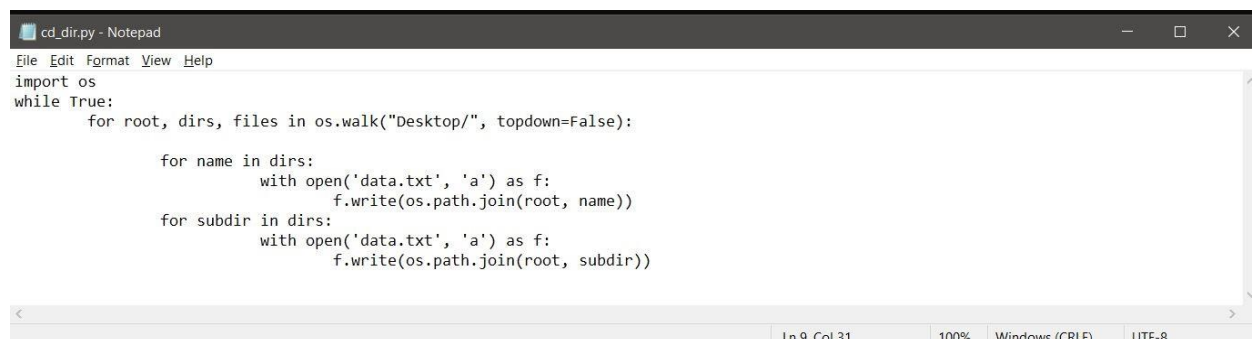
Ln 9, Col 36    100%    Windows (CRLF)    UTF-8
```



```
cmd Command Prompt
C:\Users\User>python cd_dir.py
Desktop/build\19bncn7275
Desktop/dist\19bncn7279
Desktop/dms\merged
Desktop/hrushi\out\production\hrushi
Desktop/hrushi\out\production
Desktop/hrushi\idea
Desktop/hrushi\out
Desktop/hrushi\src
Desktop\Neuron\Linear Regression App\static\css
Desktop\Neuron\Linear Regression App\extensions
Desktop\Neuron\Linear Regression App\idea
Desktop\Neuron\Linear Regression App\static
Desktop\Neuron\Linear Regression App\templates
Desktop\Neuron\Linear Regression App
Desktop\ite mps\cat 1
Desktop\ite mps\cat 2
Desktop\ite mps\cat 3
Desktop\lab compre\out\production\lab compre
Desktop\lab compre\out\production
Desktop\lab compre\idea
Desktop\lab compre\out
Desktop\lab compre\src
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\idea\inspectionProfiles
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\application_logging\_pycache_
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\best_model_finder\_pycache_
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\DataTransformation_Prediction\_pycache_
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\DataTransform_Training\_pycache_
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\DataValidation_Insertion_Prediction\_pycache_
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\DataValidation_Insertion_Training\_pycache_
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\data_ingestion\_pycache_
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\data_preprocessing\_pycache_
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\EDA\_ipynb_checkpoints
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\file_operations\_pycache_
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\models\XGBoost
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\models\WaiveBayes1
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\models\XGBoost0
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\PredictionArchivedBadData\BadData_2020-02-19_165637
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\PredictionArchivedBadData\BadData_2020-02-19_173611
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\PredictionArchivedBadData\BadData_2020-04-12_215100
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\PredictionArchivedBadData\BadData_2021-02-26_165536
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\PredictionArchivedBadData\BadData_2021-02-26_165647
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\PredictionArchivedBadData\BadData_2021-02-26_170239
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\Prediction_Raw_Data_Validation\_pycache_
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\TrainingArchiveBadData\BadData_2020-02-19_162402
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\TrainingArchiveBadData\BadData_2020-02-19_162552
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\TrainingArchiveBadData\BadData_2020-02-19_163931
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\TrainingArchiveBadData\BadData_2020-02-19_165021
Desktop\machine learning\creditCardDefaulters\code\creditCardDefaulters\TrainingArchiveBadData\BadData_2020-02-19_165329

Activate Windows
Go to Settings to activate Windows.
```

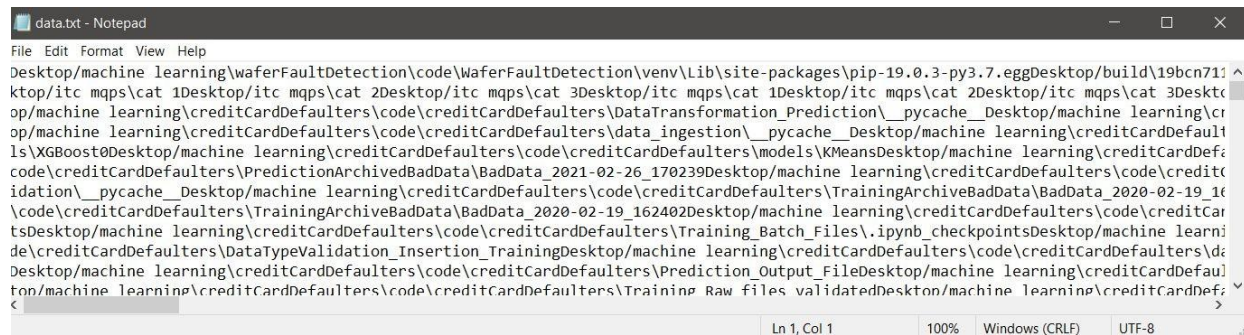
**Q) Write a python script to get all the file name, directory and all the subdirectory names (recursively) in the current directory and write it in a file**



```
cd_dir.py - Notepad
File Edit Format View Help
import os
while True:
    for root, dirs, files in os.walk("Desktop/", topdown=False):
        for name in dirs:
            with open('data.txt', 'a') as f:
                f.write(os.path.join(root, name))
        for subdir in dirs:
            with open('data.txt', 'a') as f:
                f.write(os.path.join(root, subdir))

Ln 9, Col 31    100%    Windows (CRLF)    UTF-8
```

```
C:\Users\user>python cd_dir.py
Traceback (most recent call last):
  File "cd_dir.py", line 9, in <module>
    with open('data.txt', 'a') as f:
  File "C:\Users\user\AppData\Local\Programs\Python\Python36\lib\__bootlocale.py", line 11, in getpreferredencoding
    def getpreferredencoding(do_setlocale=True):
KeyboardInterrupt
```



**Q)Write a python script which creates four new files in the current directory using Powershell.**



```
File Edit Format View Help
f1 = open("myfile1.txt", "x")
f2 = open("myfile2.txt", "x")
f3 = open("myfile3.txt", "x")
```

